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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,932	03/31/2006	Hiroyuki Kono	2481-0112PUS1	3103
2292 7590 01/26/2010 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER MC'CARRY JR, ROBERT J				
ART UNIT 3617		PAPER NUMBER		
NOTIFICATION DATE 01/26/2010		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/532,932

Applicant(s)

KONO ET AL.

Examiner

ROBERT J. MCCARRY JR

Art Unit

3617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2009.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 1-30 is/are allowed.
6) ☐ Claim(s) 31 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/22)
4) ☐ Interview Summary (PTO-413)
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____
Paper No(s)/Mail Date _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Murata et al (US 6,367,577) in view of Tanahashi et al (US 6,237,504).

Murata et al discloses a vehicle steering mechanism comprised of a drive section comprising a motor 8. A ball screw axis 9 is connected to the output of the motor 8 by way of a shaft 9 extending in one direction, to the right of figure 1, and an additional shaft 6 extending in the opposite direction, to the left of figure 1,. A clutch 10 is interposed between the motor 8 and the ball screw axis along the shaft 6, which extend to the left of figure 1. Tie rods 7 serve as link mechanisms connected with the wheels (W) and configured to operate a rotational output of the axis from the shafts 6, 9 and the motor 8.

Murata et al discloses the steering system disclosed above. However, Murata et al does not specifically show contact detection sensors on the vehicle to communicate with the steering system and detect the road structure and automatically operate components of the steering system. Tanahashi et al discloses an automated steering system comprised of marker sensors 72 to detect markers on the road surface of the guideway having upstanding sidewalls. The marker sensors will insure the vehicle

continues on the path by following the markers and relaying information showing the markers to a central processor. It would have been obvious to one of ordinary skill in the art to have used the marker sensors 72 of Tanahashi et al as a teaching to show that sensors can be applied to a steering assembly, like that of Murata et al, with the expected result of increasing the automation of the vehicle and increasing the safety of occupants and those around the vehicle and decrease damage to the vehicle by interrupting the operation of the vehicle should the marker sensors not be detected and other portions of the guideway are detected.

Allowable Subject Matter

Claims 1-30 are allowed.

Response to Arguments

Applicant's arguments, see the amendment, filed on September 29, 2009, with respect to claims 1-30 have been fully considered and are persuasive. The rejection of claims 1-30 has been withdrawn. The arguments filed have also provided background regarding the subject matter rejected under 35 USC 112. The arguments and information provided are persuasive and the rejection under 35 USC 112 has been withdrawn.

Applicant's arguments with respect to claim 31 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT J. MCCARRY JR whose telephone number is (571)272-6683. The examiner can normally be reached on Monday through Friday 7:00am to 3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, S. Joseph Morano can be reached on (571) 272-6684. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. Joseph Morano/
Supervisory Patent Examiner, Art Unit 3617

/R. J. McCarry Jr./
Examiner, Art Unit 3617

RJM
January 15, 2010